WBPHCOT / CHW eRPMS
Mobile data capturing Pilot in Thabo Mofutsanyane
16 May 2018
Ntuthu Dhlamini

Overview

- Introduction
- Performance management
- Patient management
- Data flow
- Users
- Results
- Feedback

WBOT Segment Architecture
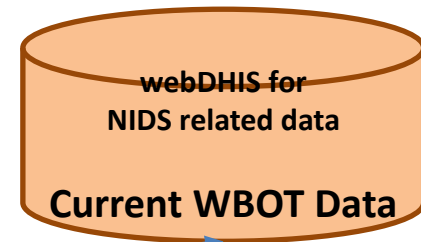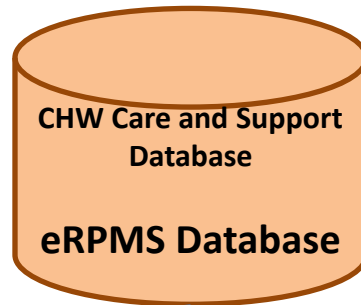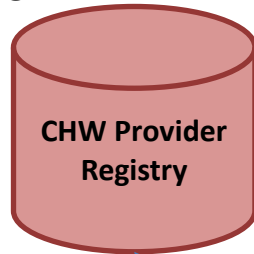
webDHIS for NIDS related data

Current WBOT Data

CHW Care and Support Database

eRPMS Database

Repository of CHW personal/HR information
Est 50,000 CHW

CHW Provider Registry

- Receives monthly reports from CHW based on care and support services. These reports document which of the CHW Teams are in fact providing services that month.
- Data from CHW is aggregated at either facility level
- Aggregated data fed into National DHIS database
- **Currently 3,323 Active teams**
- **Est `33,000 CHW**
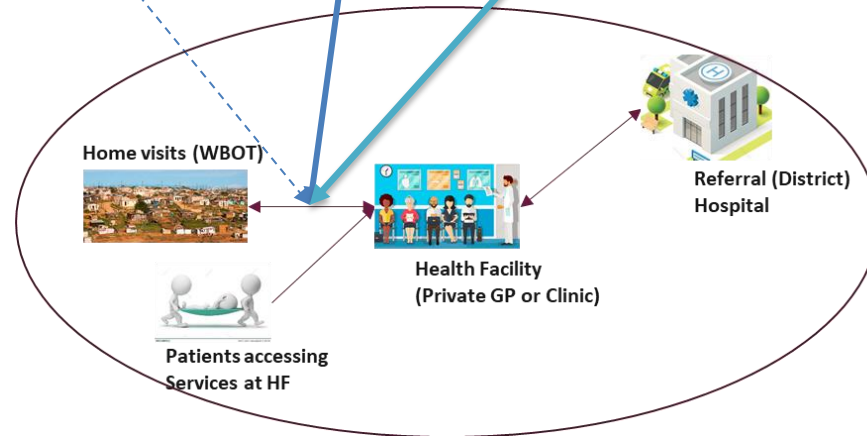
Home visits (WBOT)

Referral (District) Hospital

Health Facility (Private GP or Clinic)

Patients accessing Services at HF
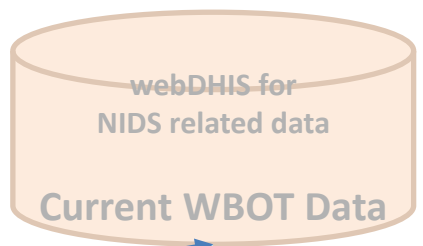
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**CHW Care and Support
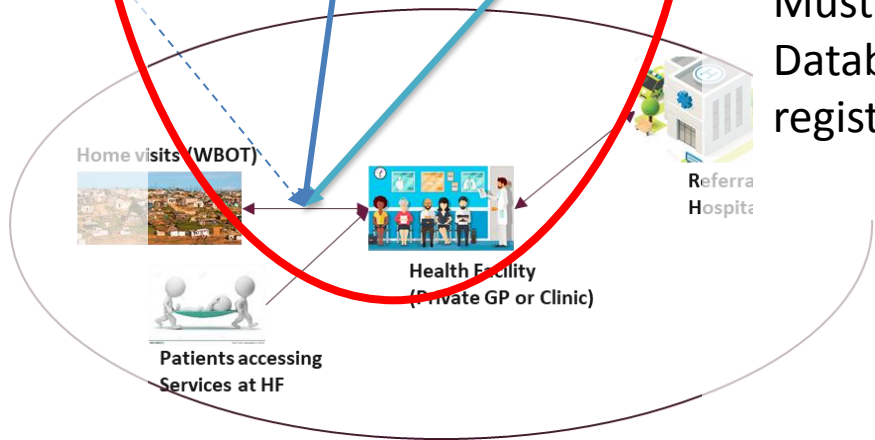Database**

eRPMS Database

CHW Provider
Registry
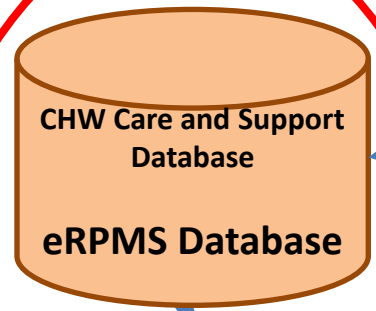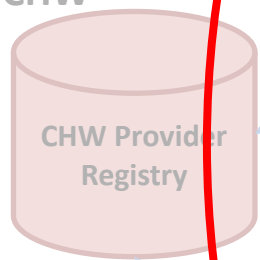
Focus of our presentation:

eRPMS gathers data on
1. Individual CHW activities
2. CHW are linked to CHW Teams
3. Individual Households

Feeds data into Aggregated WBOT
database

Must link to CHW Registration
Database to authenticate CHW
registration

Home visits (WBOT)

Referral
Hospital

Health Facility
(Private GP or Clinic)

Patients accessing
Services at HF

Free State Pilot: CHW Mobile Data Capture

Why mobile capturing

- NDoH focuses on improvement of systems and processes to ultimately improve health outcomes
- Free State requested support for mobile capturing of CHW data (re-capturing)
- HISP wanted to test mobile capturing in CHW setting after successful HPV mobile capturing – over 450,000 girls, 2000 tablets

Objectives - support

a. Improved access to and use of CHW data at local level
b. Enhancing CHW quality of care
c. Improved in CHW supervision and management
d. Improving data quality & data flow time lines
e. Reduction of costs (printing, logistics, version changes)

Selection of pilot site was based on existing WBOT data

HISP Principles

- Strengthening, and building on existing systems – thus the DHIS, existing reporting systems, and existing ME frameworks;

- NDoH owns the data and hosted on servers in SA

- Free and Open Source Software

- Keeping costs in the sustainable category
  - Data costs
  - Other costs – support, such as training of DIO's,

- Slowly but steadily contributing to the development of electronic HIS in South Africa

Tracker Implementation at Thabo Mofutsanyane

- A tracker APP posting data directly into webDHIS was developed. It has the following features:
  - CHW registration
  - Target setting and monitoring
  - Household registration
  - Assessment of each household member
  - Scheduling of visits
  - Referral and back-referral
  - Dashboards

- 5 Teams, 33 CHWs, 3 OTLs trained
- Data capturing from Oct 2017
- Supported by
  - T Mof DIO and Network Controller,
  - HISP remotely + weekly support visit

These provide info on:
- **Individual patients**
  - LTFU
  - Referrals
- **Households**
  - Esp at risk
- Feeds into the CHW **Performance Management** Framework

CHW registration

- The education information and employment details are captured in CHW profile

- Details can be updated regularly

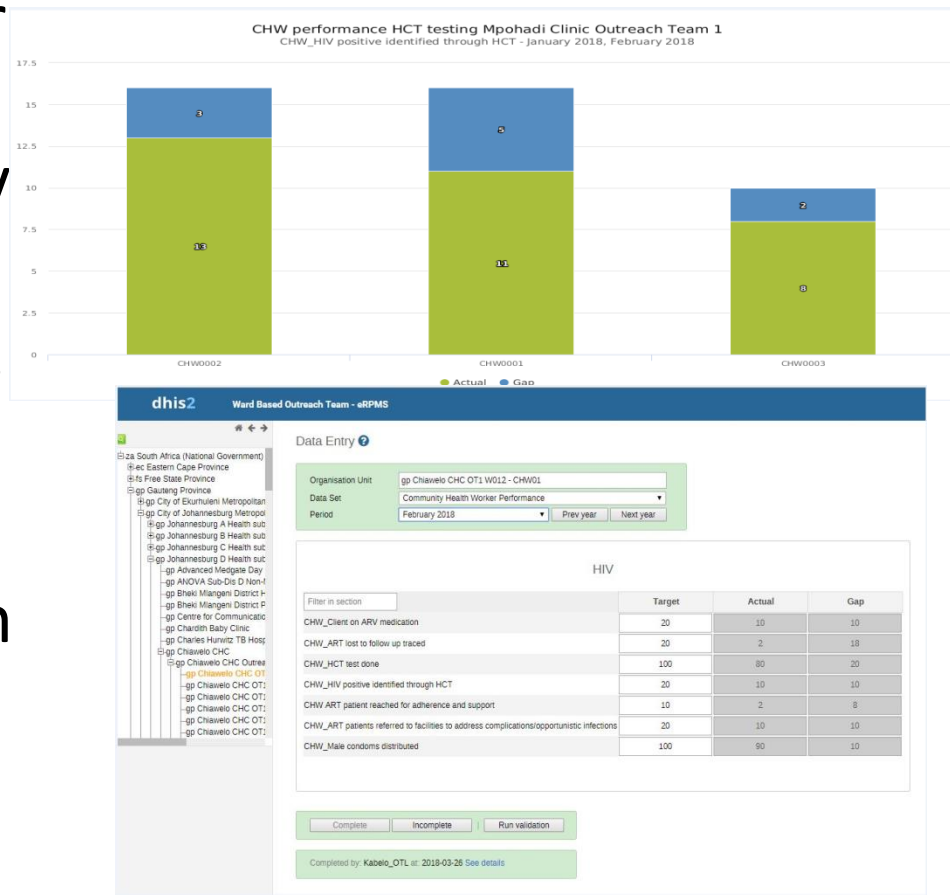- Each CHW is linked to a team led by an OTL

Targets and outputs – supporting Performance Mx

- OTL can set targets for CHW monthly and monitor progress daily

- OTL can see the actual performance vs the gap in a graph or pivot table

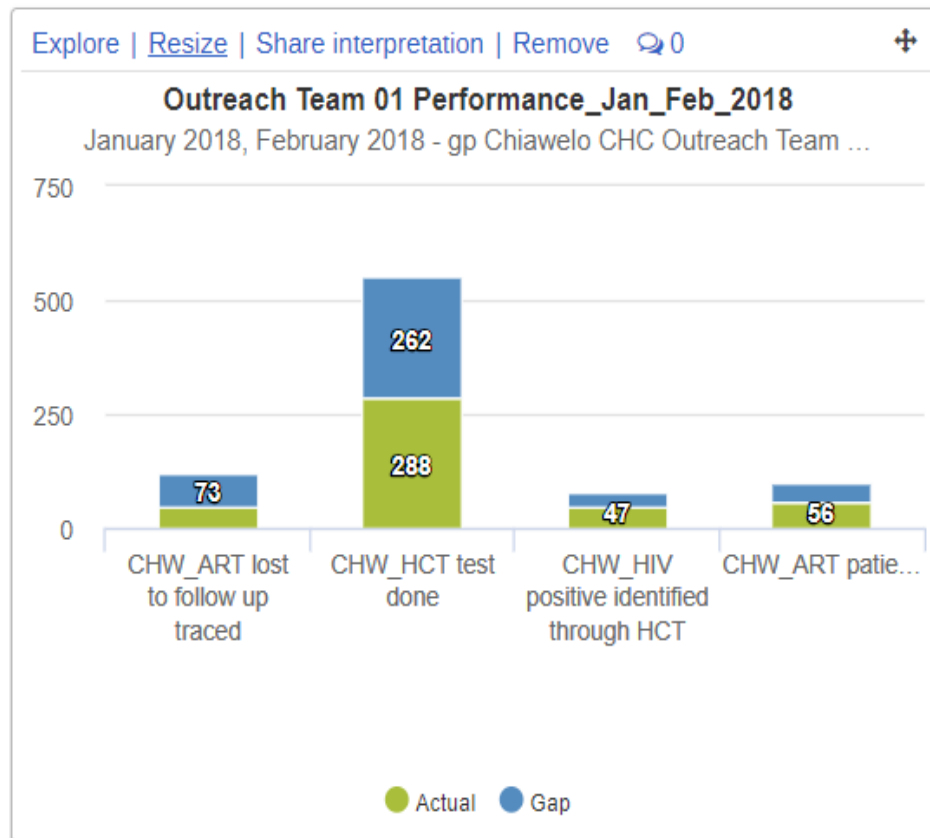- OTL can identify which CHWs need support by monitoring progress

Aggregation by WBPHCOT – Supporting Performance Mx

- Data is aggregated to show team performance

- Team performance is aggregated to reflect facility performance

- Seamless integration of NIDS with Provincial DB

Explore | Resize | Share interpretation | Remove 💬 0

Outreach Team 01 Performance_Jan_Feb_2018
January 2018, February 2018 - gp Chiawelo CHC Outreach Team ...

CHW_ART lost to follow up traced — 73

CHW_HCT test done — 262, 288

CHW_HIV positive identified through HCT — 47

CHW_ART patie... — 56

● Actual ● Gap

Registration supporting Patient Management

- Each individual is registered and given a household ID linking her to HH

- GPS coordinates populate automatically when network is available

Assessment, monitoring and data entry supporting Patient Management

- A list of assessment questions are asked by CHW and responses captured on device

- The CHW is prompted to refer client where applicable

Visit Information

* Did you refer the client for TB Symptoms
  ● Yes ○ No

Would you like to have an HIV test?
  ○ Yes ● No

Are you taking daily medication?
  ● Yes ○ No

☐ Are you on TB medication?

☐ Are you taking diabetes medication?

☐ Are you taking any hypertension medication?

☑ Are you on ARV medication?

* ART lost to follow-up traced
  ○ Yes ● No

* Defaulter referred to facility
  ○ Yes ● No

* Do you need assistance with daily living activities?
  ● Yes ○ No

* Do you need assistance applying for social grants?
  ● Yes ○ No

UP ⬆

Department:
Health
REPUBLIC OF SOUTH AFRICA

Work Planning and Scheduling supporting Patient Management

Referral, back referral and feedback loops supporting Patient Management

- CHW refers client →facility gets an email or sms notification

- Client seen at facility and back referred to CHW →CHW receives notification

- OTL allocates LTFU clients to relevant CHW → CHW receives notification

- Based on above:
  - CHW traces client and refers back to facility and
  - Client removed from LTFU list

Dashboard examples
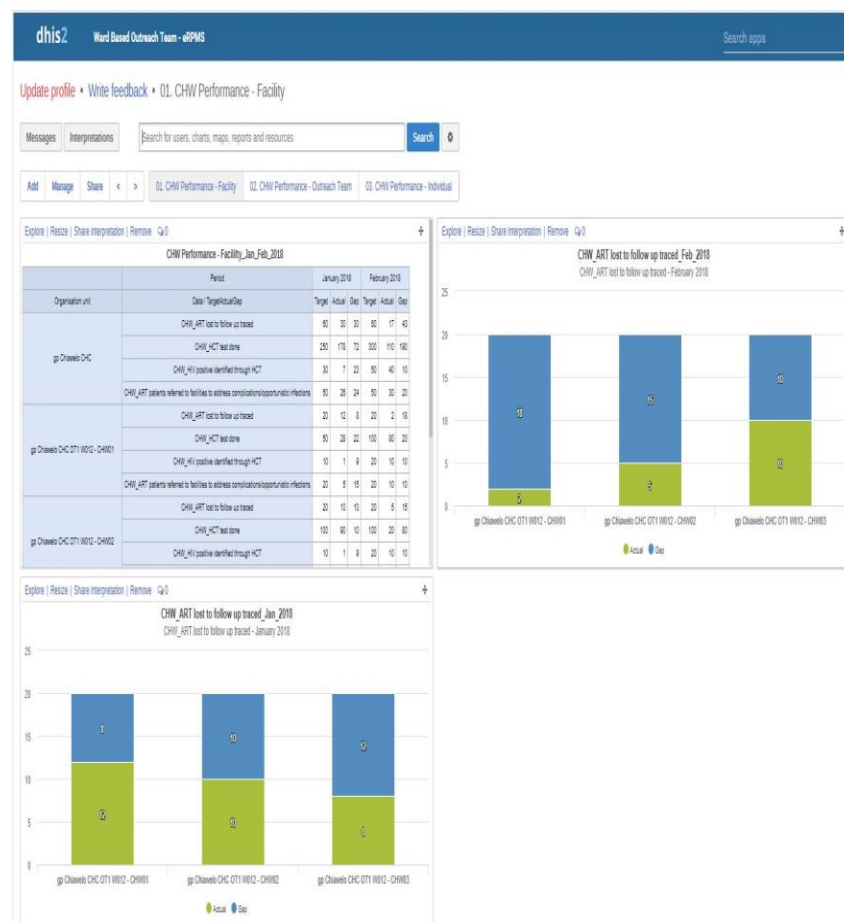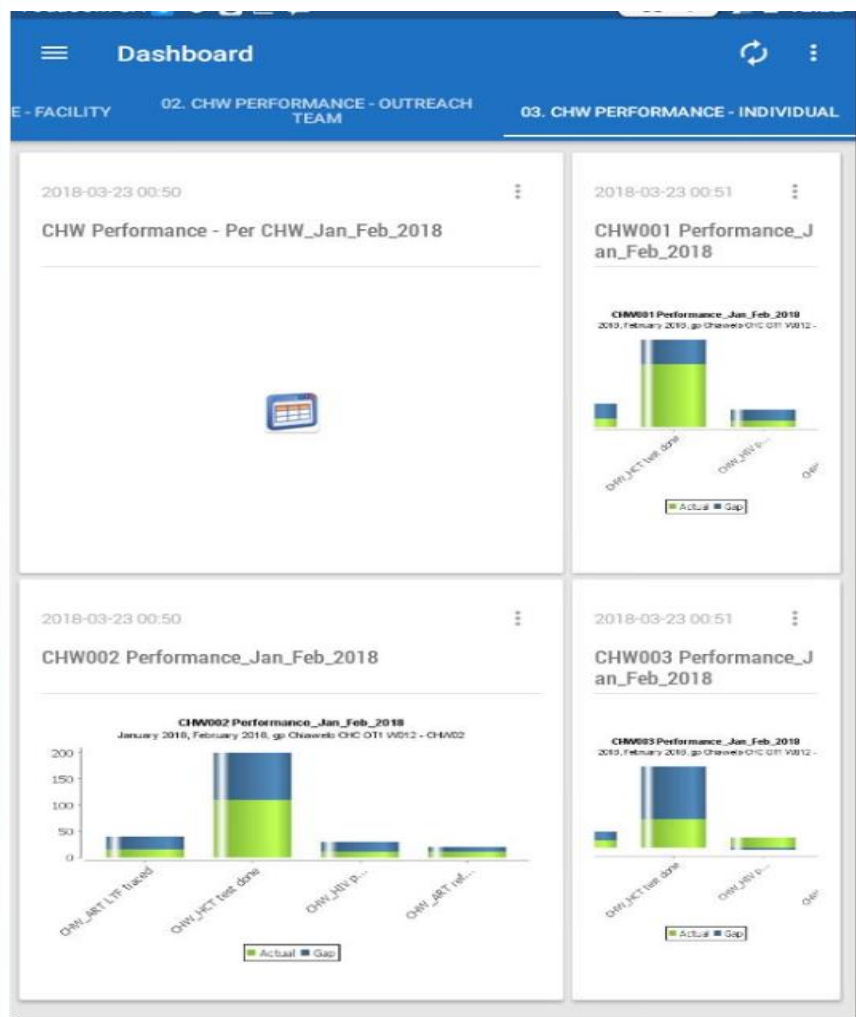
Data flow
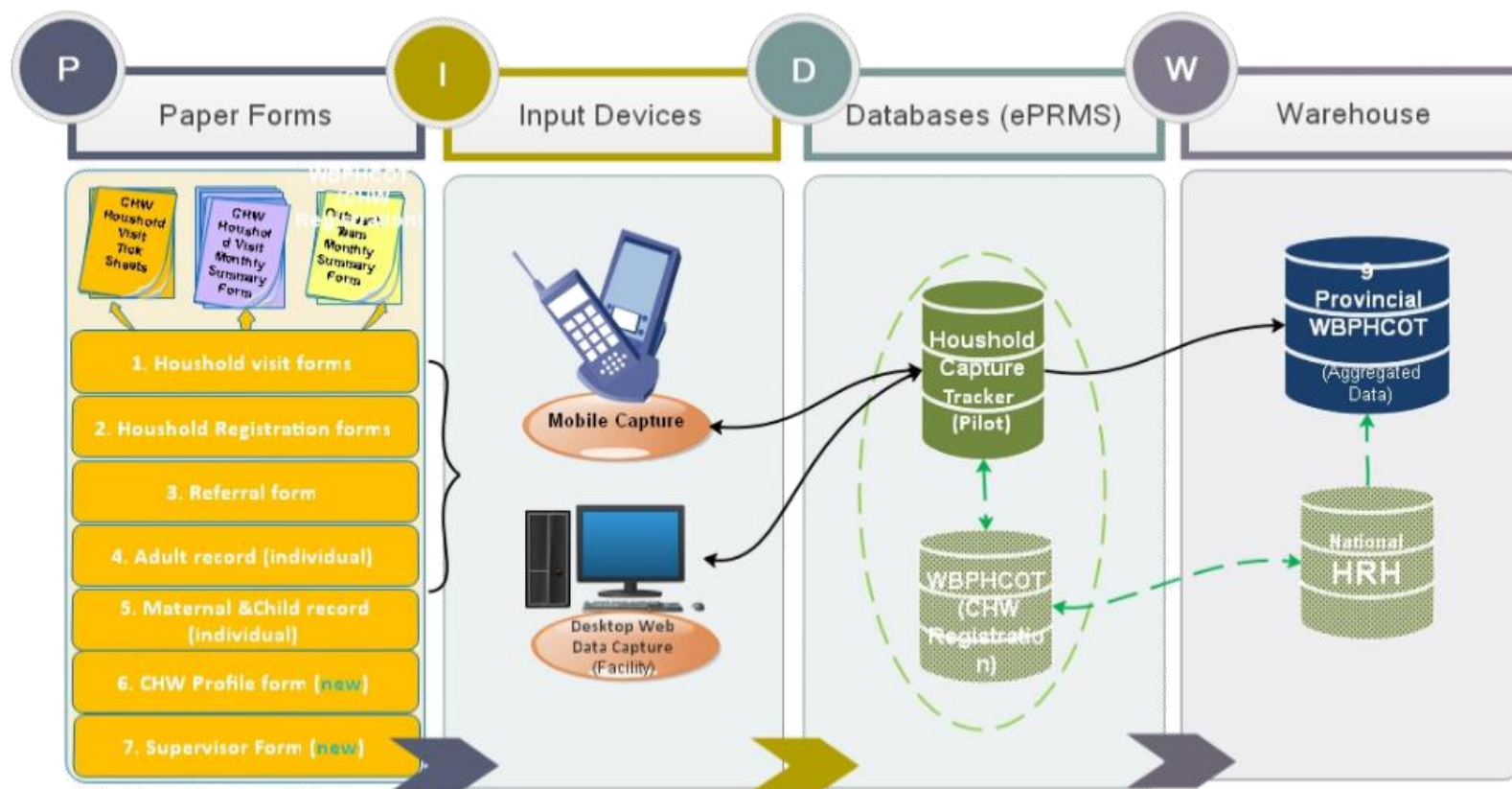
Users

CHW, Team & Facility level (OU 7, 6 & 5)

- 33 Community Health Workers
- 5 Outreach team leaders
- Information officer
- Facility manager

Sub-district – National level(OU 4, 3, 2, 1)

- WBOT managers

Results …..

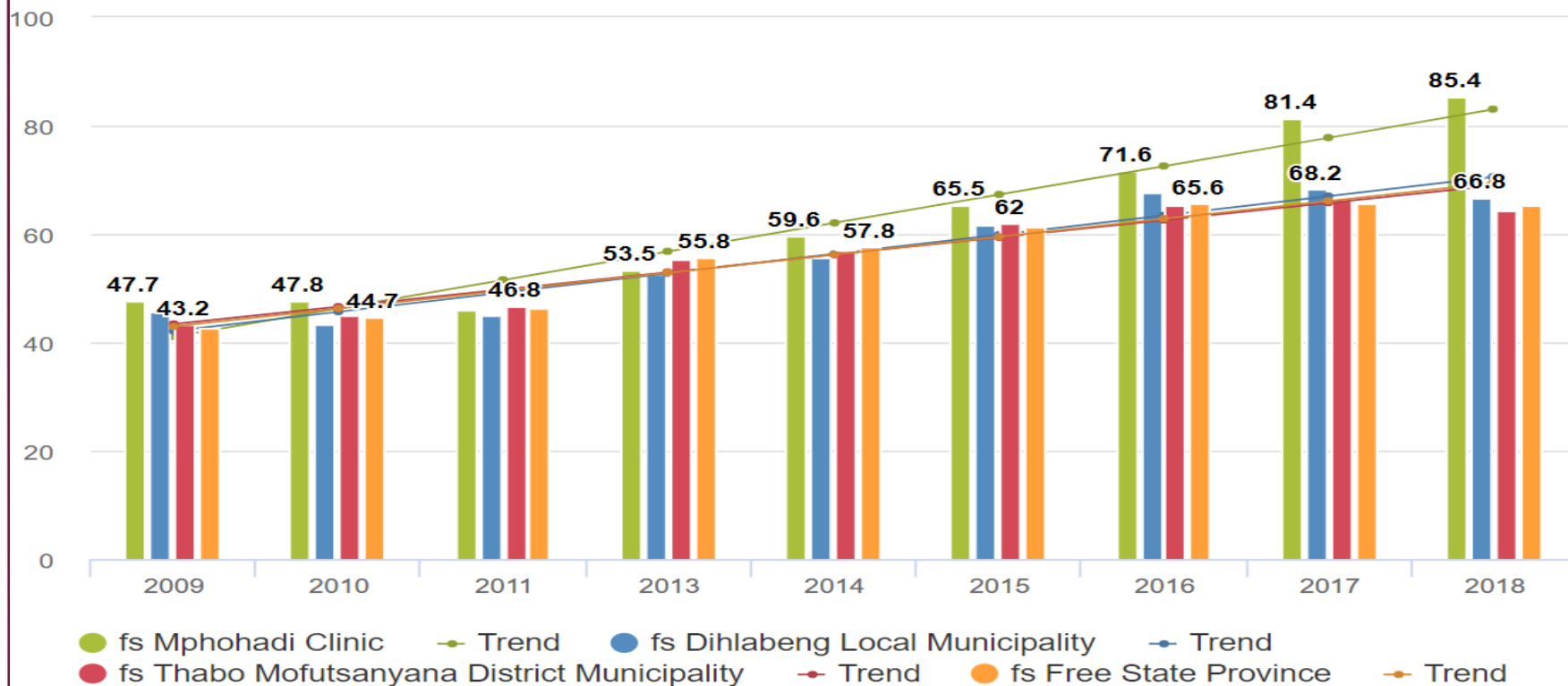1. Data and data capturing:
    - Online and offline capturing ensures continuity
    - 3 summary forms no longer needed
    - DQ improved (human error)
    - Data flow time lines decreased
    - Monthly extracted into aggregated DHIS2 database (more frequently if needed)
2. CHWs, OTLs and facility managers - monitor progress daily from mobile devices / computers
3. Functionality:
    - If connected, coordinates of household are populated (5-10m accuracy)
4. Technical aspects:
    - Analytics run every night (more frequently if needed)
    - Integrated analysis with aggregated WBOT and facility data

Results - Health facility data in DHIS2 (aggregated)

Antenatal 1st visit before 20 weeks rate

Positive feedback from CHWs & OTLs using tracker

Community Health Workers

- CHWs mentioned that "using the tablet is quick and fast as compared to using paper based method"
- Data collection processes, timeliness of submission and speed of capturing have improved
- Impressed with offline capturing
- Time spent in households is reduced as questions asked by the program are relevant and the device is user friendly

Outreach Team Leaders

- Outreach Team Leaders (OTL) can monitor the performance of CHWs daily

Information officer

- Data accuracy has improved
- Alignment to the NIDS helps in that data is uploaded to the FS instance, collected elements populated automatically without requiring any intervention from the facility data capture

Barriers when using tracker

Trust Barrier:

– Some community members do not trust CHWs with their personal details since the use of tablets is associated with scams

– **Solution:** All teams equipped with paper forms to manually capture data in the event of device malfunction or client preference

Theft Barrier:

– "carrying a tablet in some communities is a security concern since we can be mugged."

– **Solution:** Safety and security training will be covered in initial training and reiterated weekly through OTL supervisors. If clusters of theft occur in a given area; mobile devices will be discontinued until safety can be assured

Conclusion

- In line with international recommendations, inclusion of CHW data into the health facility information system to which they are attached ensures CHW work is part of the national health information system

- Successful pilot allows NDoH to now move towards:
  - Establish HRH registry for South Africa for CHW
  - Establish eRPMS system for South Africa
  - strengthen the current data management processes, including M&E

CHW mobile data capturing and data access